8. On an interesting Example of Protective Mimicry discovered by Mr. W. L. Sclater in British Guiana. By Edward B. Poulton, M.A., F.R.S.

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(Plate XXXVI.)

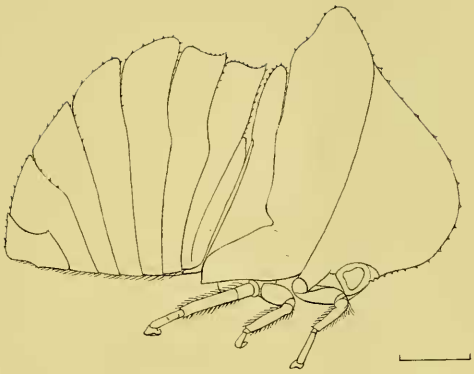
An example of Protective Mimicry which I believe to be more wonderful in its detail and complexity than any which has been hitherto described, was observed and interpreted by my friend Mr. W. L. Sclater in 1886 during his investigations in British Guiana. Knowing that I was interested in the subject, Mr. Sclater kindly communicated the observation to me and placed his material at my disposal. I have already given a brief account of the example[1], but it seems of sufficient importance and interest to demand illustration; and I take the opportunity of saying a little more about it and of answering criticisms.

Mr. Sclater and his native servant had been collecting insects by shaking the branches of a tree over a sheet. The servant, although described as a very acute observer, saw an insect on the sheet which he mistook for one of the abundant Cooshie Ants (*Œcodoma cephalotis*) carrying its little jagged segment of leaf over its back. Mr. Sclater looked more closely and saw that it was an entirely different insect belonging to the order Homoptera. The specimen has been submitted to Mr. C. Waterhouse, who states that it is an immature stage of a species belonging to the family *Membracidæ* and probably to the genus *Stegaspis*.

Its length is 9·3 mm., or about that of an ant carrying its leaf. The leaf is represented by the thin flattened body of the insect, which in its dorsal part is so compressed laterally that it is no thicker than a leaf and terminates in a sharp jagged edge (Plate XXXVI. figs. 1, 2). The head and legs were apparently brown, and suggested the appearance of that part of an ant which is uncovered by the piece of leaf. The jagged dorsal line when seen in profile evidently corresponds to the roughly gnawed edge of the fragment of leaf; for Mr. Sclater tells me that the contour of the latter is generally shaped by the mandibles of the ant rather than due to the natural margin, as represented in fig. 2.

It is probable that the Homopterous insect invariably frequents trees where too the ants would be well known and abundant. "The example is, as far as I am aware, unique in the detail with which the original is reproduced; not only is the specially protected species copied, but it is depicted at its usual occupation, and the material upon which it labours is also included in the picture."[2] It is nevertheless possible to trace, with very probable correctness, the path by which natural selection has produced so marvellous a result.

[1] 'Colours of Animals,' London, pp. 252–532.
[2] *Ibid.* p. 253.



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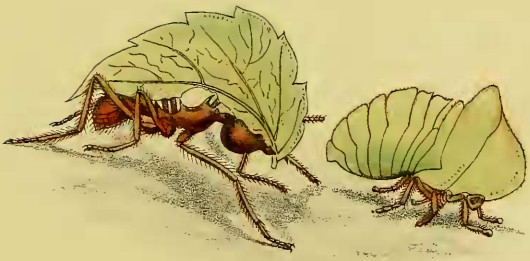

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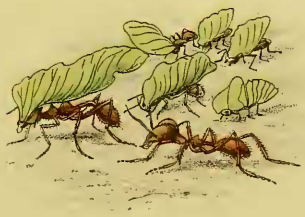

3.

E. B. Poulton &
H. M. J. Underhill del. J. Smit lith.

Mintern Bros. imp.

PROTECTIVE MIMICRY IN A HOMOPTEROUS INSECT.